

SAPPHIRE

2021

CIO Innovation Index

Reimagining the Enterprise



About the Index

The CIO Innovation Index is designed to help IT decision makers benchmark innovation strategies against peers and to help startups understand how best to engage with large enterprises and CIOs.

This year's report explores the most pressing issues of today for CIOs and IT leaders including changes to workforce strategy, the intersection of ESG and technology strategy, adoption of emerging technologies, and the process of engaging venture-backed startups.

About the Research

The CIO Innovation Index is based on a quantitative survey circulated within Sapphire's external network of IT decision makers. This year's Index is based on input from 43 CIOs and senior IT decision makers across a variety of industries such as financial services, manufacturing, healthcare and pharmaceuticals. It also spans geographies and company sizes. The survey collection was conducted by the firm from May - August, 2021.

Respondents included executives from:



Table of Contents

01

What's New In
2021

02

Emerging Technology
Adoption & Spend

03

Startup Engagement
Trends

04

Key Takeaways

05

Background &
Methodology

01

What's New In 2021 →

This year's Index introduces 3 new themes:



Workforce strategies for a post-covid world

Last year, we explored the impact of the pandemic on enterprise innovation and startup engagement. Eighteen months later, we are now taking a look at how companies are strategizing for a post-COVID workplace, which includes a close look at how startups are contributing to making remote and hybrid work seamless and secure.



ESG becomes part of the CIO remit

Environmental, social, governance (ESG) strategy is top-of-mind for CIOs more than ever before. Many are starting to make an impact by leveraging technology to meet ESG goals. In this year's report, we gather interesting insights on if and how ESG strategy is integrated into technology strategy, and the benefits to linking the two.



New channels for startup discovery

An important component of the CIO Innovation Index is to help startups understand how to gain exposure to Global 2000 CIOs and IT decision makers. In this year's report, we go deep into areas like cloud marketplaces and employee adoption of freemium offerings as entry- points into the enterprise. This analysis is included in the third section of our report.

A lasting impact on workforce strategy

91%

of respondents are making changes to their workforce strategy.

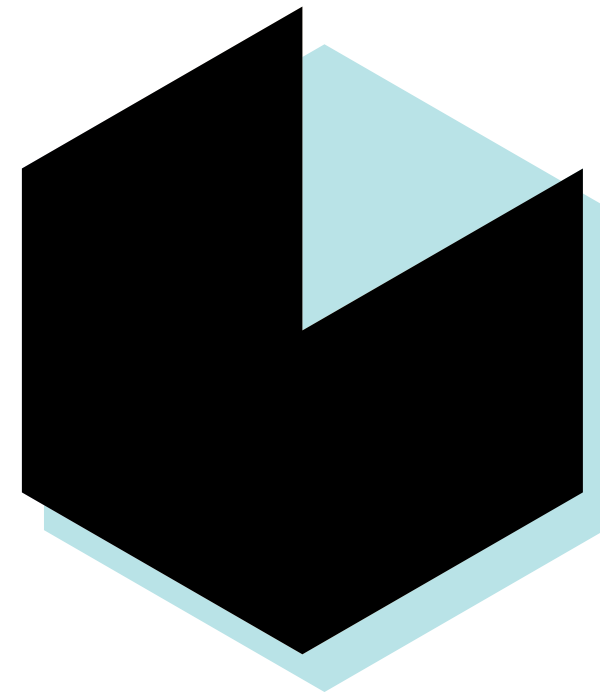
88%

are introducing more flexibility in remote versus in-office work.

- These findings match data from PwC and other research organizations. Specifically, less than **1 in 5** executive respondents to PwC's remote work survey **anticipated a complete return to the pre-pandemic office strategy.**
- Employees are putting pressure on their employers to make changes. Data from Microsoft's 2021 Work Trend Index showed that 73% of employees surveyed **"want flexible remote work options to continue."**
- Despite strong signals for changing workforce strategies, for some CIOs this **continues to be a period of uncertainty.** 7% of respondents feel it is too early to tell how their strategy will evolve.

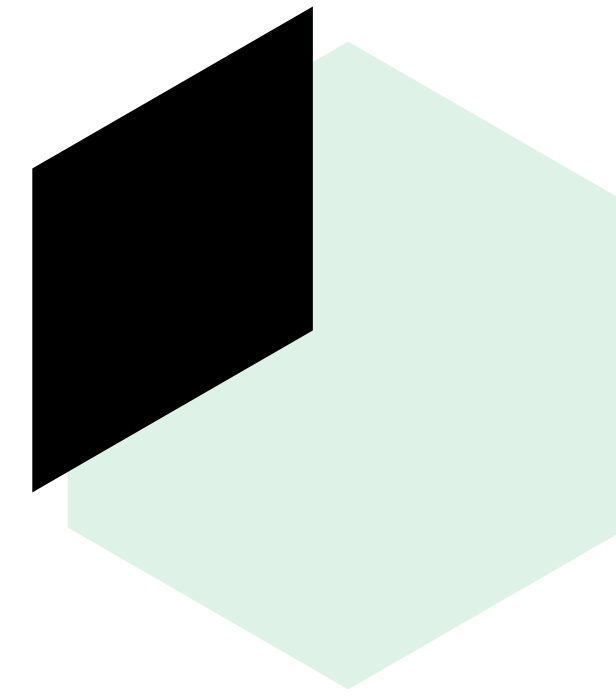
What will a post-pandemic workforce look like?

In considering your post-pandemic workforce strategy, select all that apply:



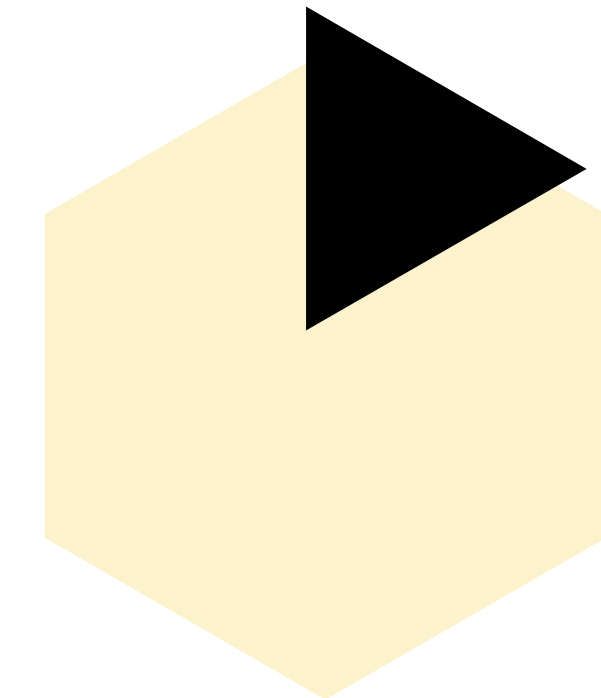
84%

Increased flexibility in remote vs. in office work



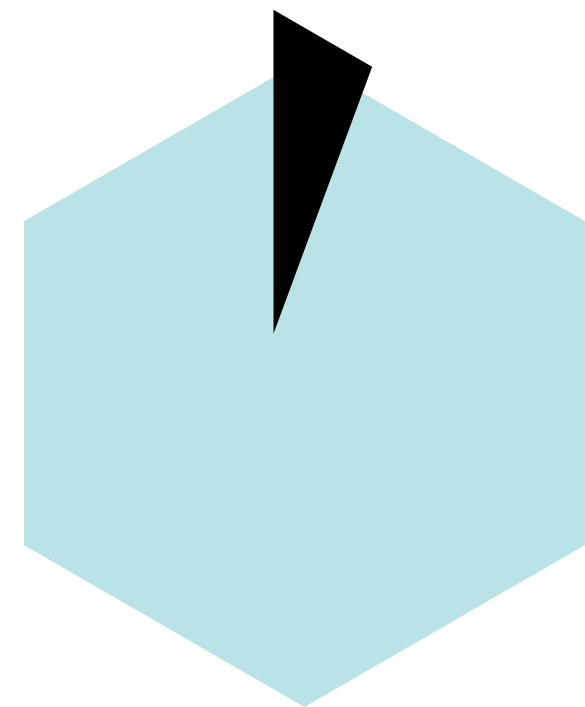
30%

Closing one or more office locations



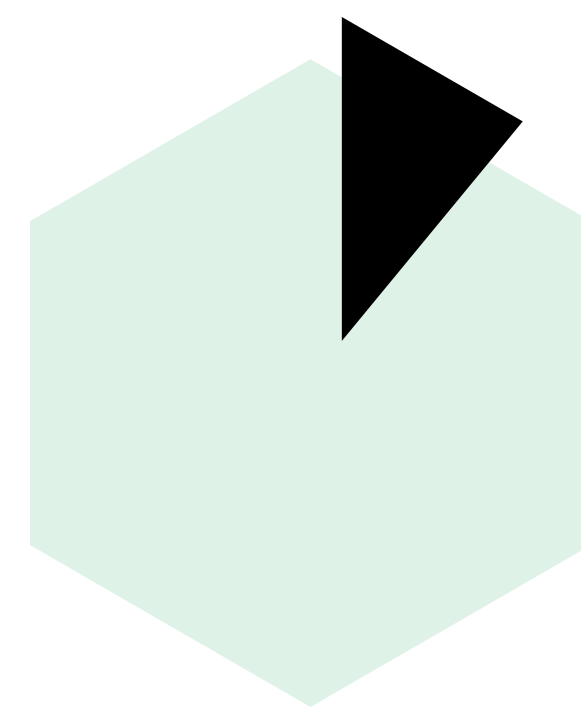
21%

Permanent remote work option



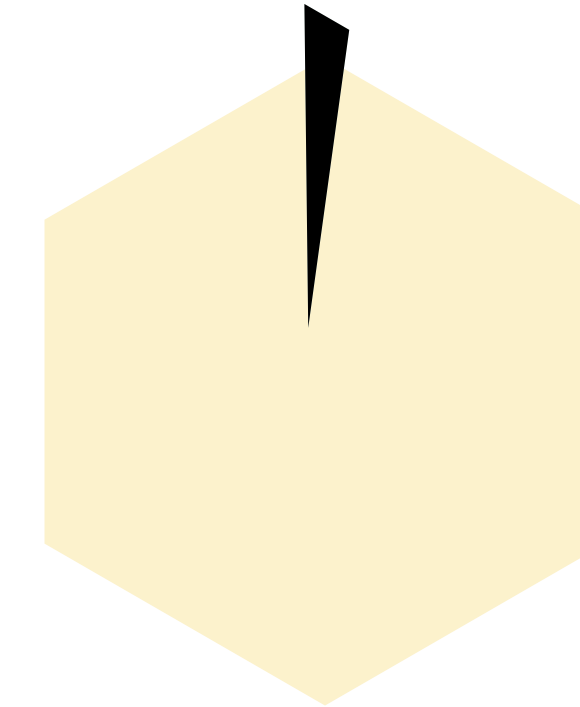
7%

Not sure / Too early to tell



12%

Opening one or more new offices



2%

None of the above

Startups are essential in facilitating remote work

As hybrid work becomes a reality, startups are crucial to supporting distributed and remote teams.

Startups continue to provide critical technologies, enabling distributed teams to connect with one another, hire from anywhere, support employees, and secure an extended perimeter.

86% of respondents report that startups play at least some role in supporting shifts to remote work, compared to 76% in 2020.

Remote collaboration and authentication/cybersecurity emerged as categories with the highest percentage of startup usage in the context of remote work.

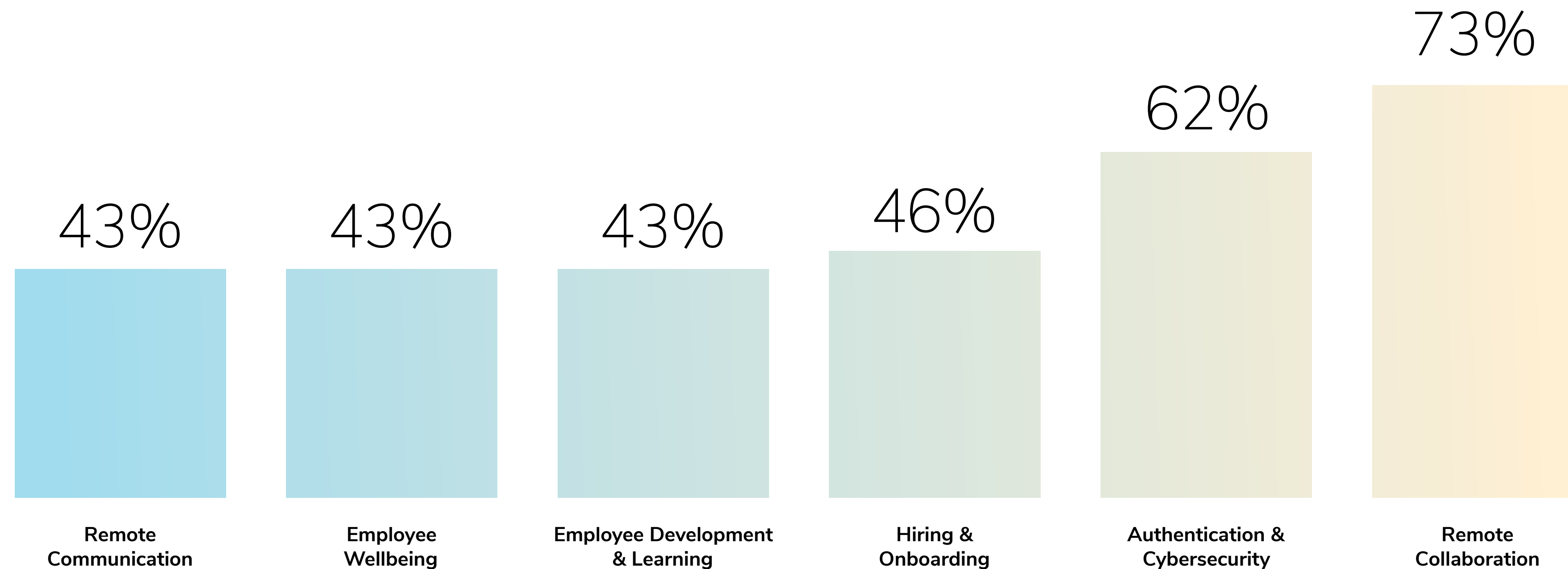
“In the past 18 months, we’ve seen many organizations shift to a more flexible hybrid work model, with benefits such as better work-life balance, access to deeper talent pools, and happier employees; but there are also challenges inherent in this shift: collaboration, communication, and productivity can all be harder to manage when some or all of a team is remote. As a result, many CIOs are adopting new platforms that can help connect employees, increase visibility into workflows and productivity, and improve the overall employee experience.”

Rita Selvaggi

CEO, ActivTrak

How have startups supported shifts in your remote work model?

Respondents are using startup solutions to support a wide range of remote and hybrid work-related use cases.



Graph reflects breakdown within the 86% of organizations utilizing startups in the shift to remote work.

ESG strategy is increasingly integrated into technology strategy

Due to a combination of consumer preference, regulatory pressures, and employee demands, we've seen environmental, social, and governance (ESG) strategy become increasingly important to CIOs and IT leaders.

This year, we asked respondents to report how their ESG strategy applies to technology.

87% reported a direct link between their ESG and technology strategies.

Some categories within ESG have clear regulatory requirements. For example, **77% of respondents are incorporating data privacy tooling** into their technology strategy, reflecting the onset of GDPR and CCPA.

While there are few - if any - regulatory obligations for many companies when it comes to sustainability and D&I, **sustainability (65%) and diversity & inclusion (56%) are noted as areas of focus for a majority of CIOs.**

It's clear that ESG is a priority for the majority of CIOs, and there's a growing connection between their strategies and meeting company ESG goals.

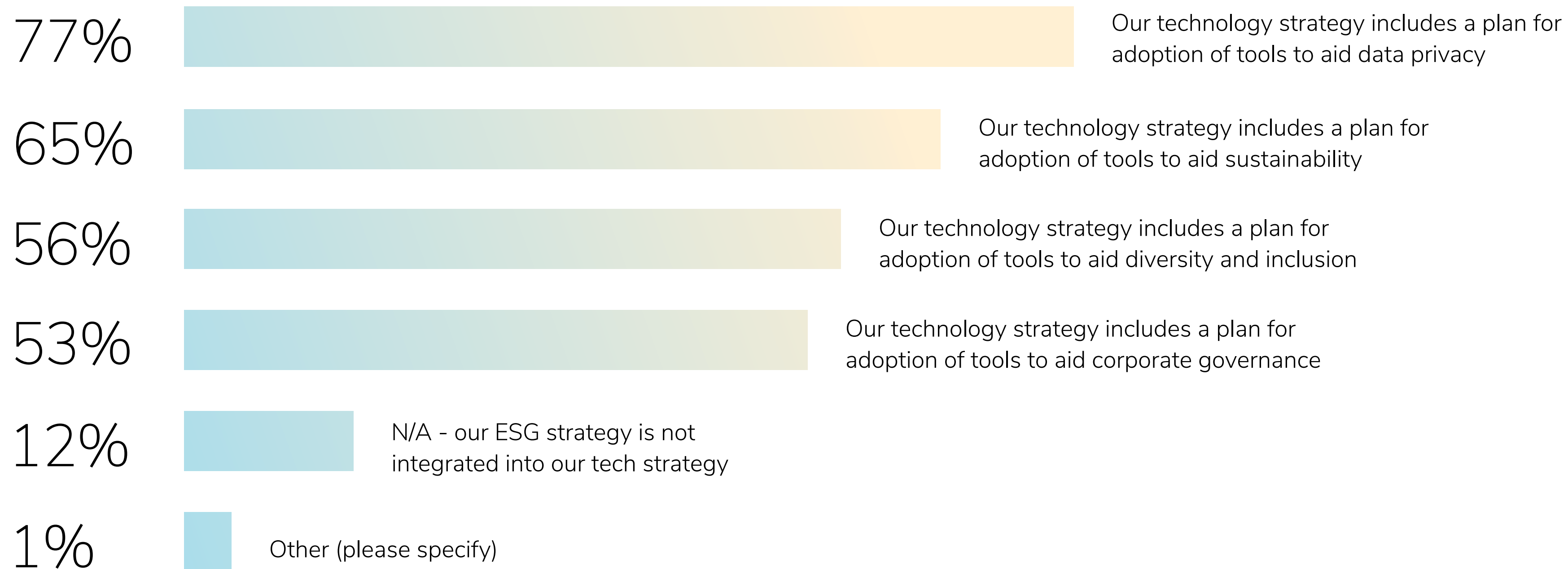
“ESG principles like sustainability and a commitment to diversity, equity, and inclusion are a key facet of our strategy – and we are actively adopting technology solutions to help support these goals.”

Opinder Bawa

Vice President & Chief Information Officer,
University of San Francisco
(Recently ranked #1 in the US for student diversity.)

How are your company's ESG and technology strategies linked when it comes to adoption of new technology?

Respondents are adopting technology tools to aid ESG efforts across data privacy, sustainability, D&I, and corporate governance.



Startups and VCs are increasingly active in ESG ecosystems

We are focused on building Companies of Consequence, including category leaders in sustainability, DEI, and ethical data governance.

“As investors, we’re seeing both an increased urgency and increased awareness around sustainability solutions – Sapphire is closely tracking the ecosystem of startups providing enterprises with better solutions to drive their sustainability agenda across key areas such as carbon accounting and reporting, carbon offsetting, supply chain transparency, and the circular economy.”

Annalise Dragic

Principal, Sapphire Ventures

“Responsible data management and governance is an ethical and regulatory imperative for today’s enterprises. It can be difficult to balance the need for quick data access and the necessity of ensuring data security and privacy – especially across multiple clouds and hybrid environments. We’re clearly seeing the rise of a unified approach to cloud data access and management based on open standards that extensively leverages automation to maintain privacy and maximize insights.”

Balaji Ganesan

Co-Founder and CEO, Privacera

“At p44, we’ve seen supply chain related emissions calculation asks continue to increase, especially in Europe. As much as 90% of a shipper’s emissions are related to their global supply chain (Scope 3) and data to effectively measure those emissions is very difficult to acquire. As a result, we’ve become proud participants in the United Nations Global Compact (UNGC) – specifically with regards to the environmental principles – and have committed to acquiring all the necessary data and providing GLEC accredited emissions calculations to help shippers better understand and manage their Scope 3 emissions.”

Christian Piller

VP, Research and Sustainability, Project44

“We see that organizations with inclusive cultures are statistically more likely to be high performing, have overall better business outcomes, and are more likely to meet or succeed financial targets. In order to have an impact on DEI at scale, we see successful organizations using technology tooling to measure, benchmark, and improve the impact of their DEI strategies.”

Aubrey Blanche

Global Head of Equitable Design & Impact, Culture Amp

Benchmarking your organization

90% of respondents are making changes to their workforce strategy, with 88% introducing more flexibility between in-person versus remote work.



How is your workforce strategy evolving to attract and retain talent, and meet employee needs?

87% of respondents to our survey have integrated their ESG strategy into their technology strategy.



Are you waiting for regulations to dictate your stance on ESG, or are you introducing technology tooling that addresses areas like sustainability, DEI, and corporate governance in line with the market?

02

Emerging Technology Adoption & Spend →

CIOs remain bullish on emerging technology

Since our initial survey in 2019, 5 areas of emerging technology continue to see the most adoption:

1. Cybersecurity
2. Artificial Intelligence & Machine Learning
3. Public Cloud Infrastructure
4. Digital Marketing & Sales Technology
5. Robotic Process Automation (RPA)

These emerging technology categories have become more mainstream over the past three years, resulting in larger, more established vendors gaining footholds over startups in most categories.

When it comes to AI and ML, blockchain, and AR/VR technologies, startups are still preferred.

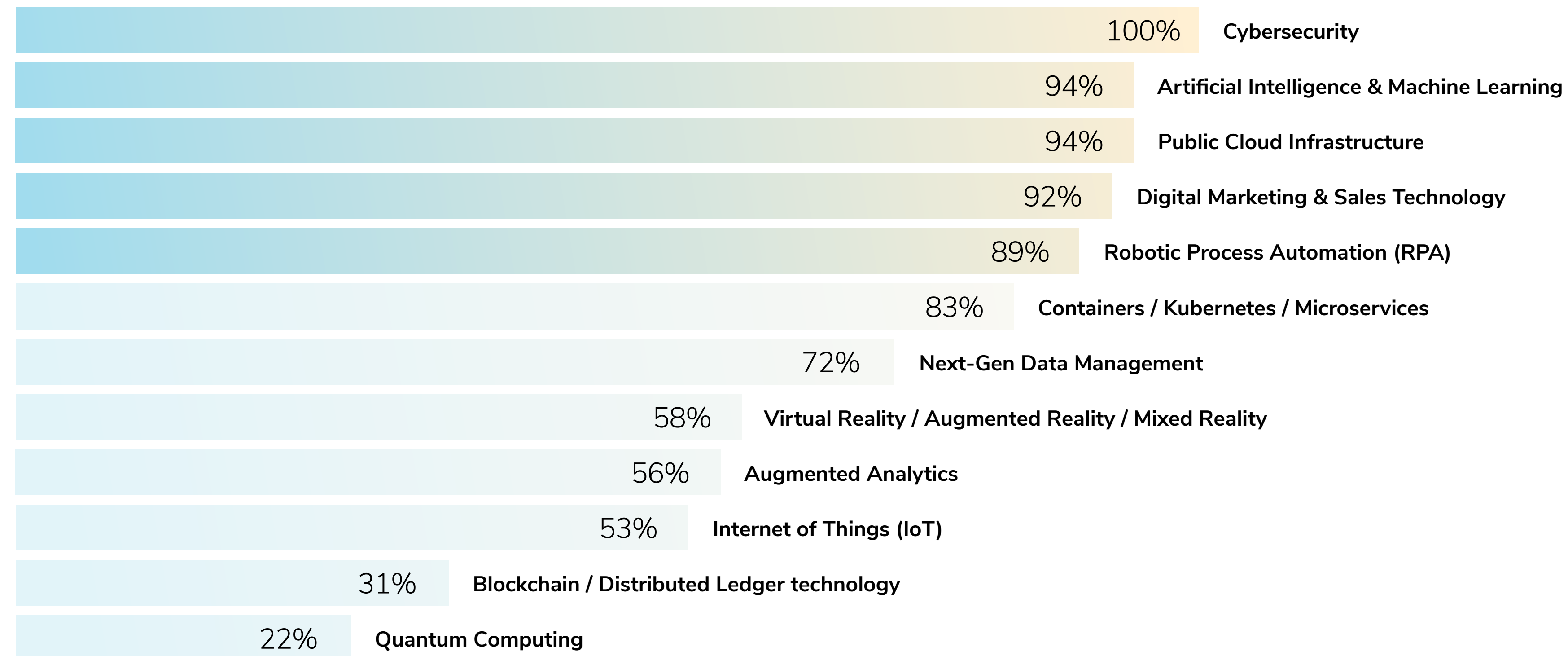
“The continuous scouting, evaluation and implementation of emerging technologies is a key task of a modern IT organization like Wacker’s.”

Dirk Ramhorst

Chief Digital Officer and Chief Information Officer, Wacker Chemie

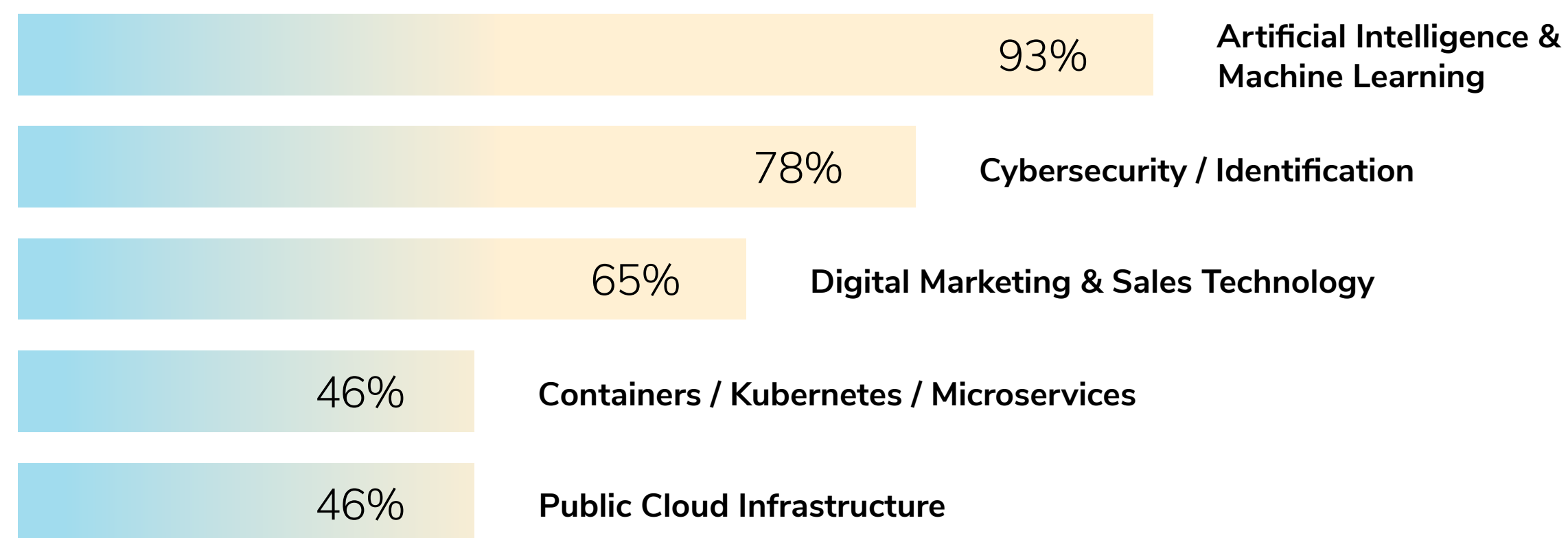
In which emerging technologies is your organization currently investing?

Our network is investing heavily in cybersecurity, AI/ML, public cloud, digital marketing & sales, and automation.



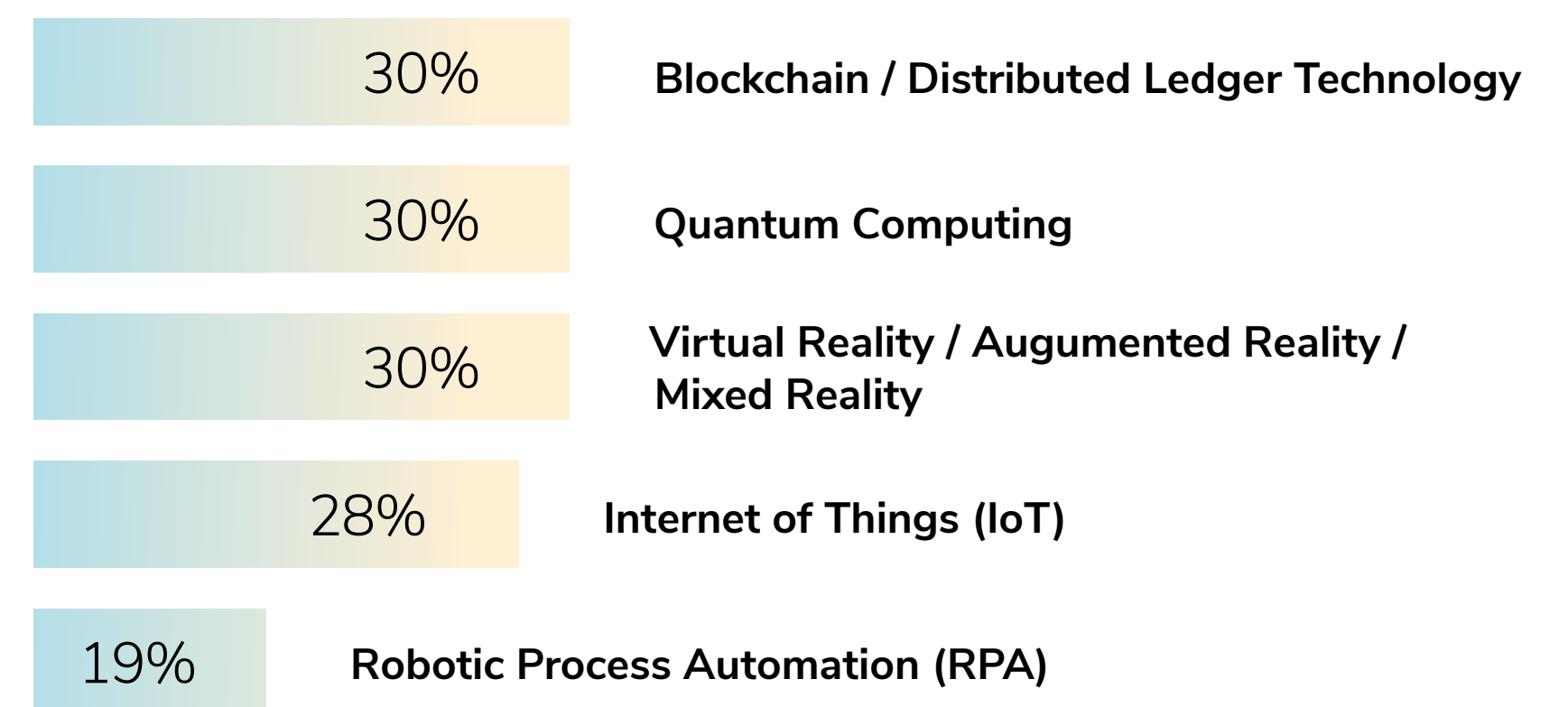
Which technologies do you plan to increase and decrease spending on the most in 2022?

Technologies with increased spend



The top 5 emerging technologies that CIOs and IT leaders expect to boost spend on are also the technologies with the **most widespread adoption**.

Technologies with decreased spend



All 5 technologies saw an increase in investment in last year's Index results.

It's possible that respondents made up-front investments to support distributed environments and now expect decreased focus and budget.

2021 Index shows share of spend given to startups is on the rise



2019-2020

For the past 2 years, the CIO Innovation Index asked respondents to categorize, in the context of their organization's current and future IT vendor spend, what percentage of overall spend is allocated to startups. Both years, respondents predicted the median share of vendor spend captured by startups would rise from 10% (current) to 15% (future).

2021

This year, startup spend hit 15%.

CIOs and IT leaders spending the most on startup solutions reported that **25% of their vendor budget goes to startups.**

Benchmarking your emerging tech strategy

CIOs are planning to increase spending on AI/ML, cybersecurity, digital marketing/sales technology, public cloud infrastructure and microservices architecture.

92-100% of respondents are investing in cybersecurity, AI/ML, digital marketing and sales technology, and public cloud infrastructure.

Startups account for an average of 15% of IT vendor budgets for our respondents today (up from 10% last year).



Are you ramping up investment as needed?



How does your technology landscape benchmark against our network?



How much does your organization spend on startups? Is that proportion increasing?

03

Startup Engagement Trends →

Professional networks & VCs are most effective channels for startup exposure

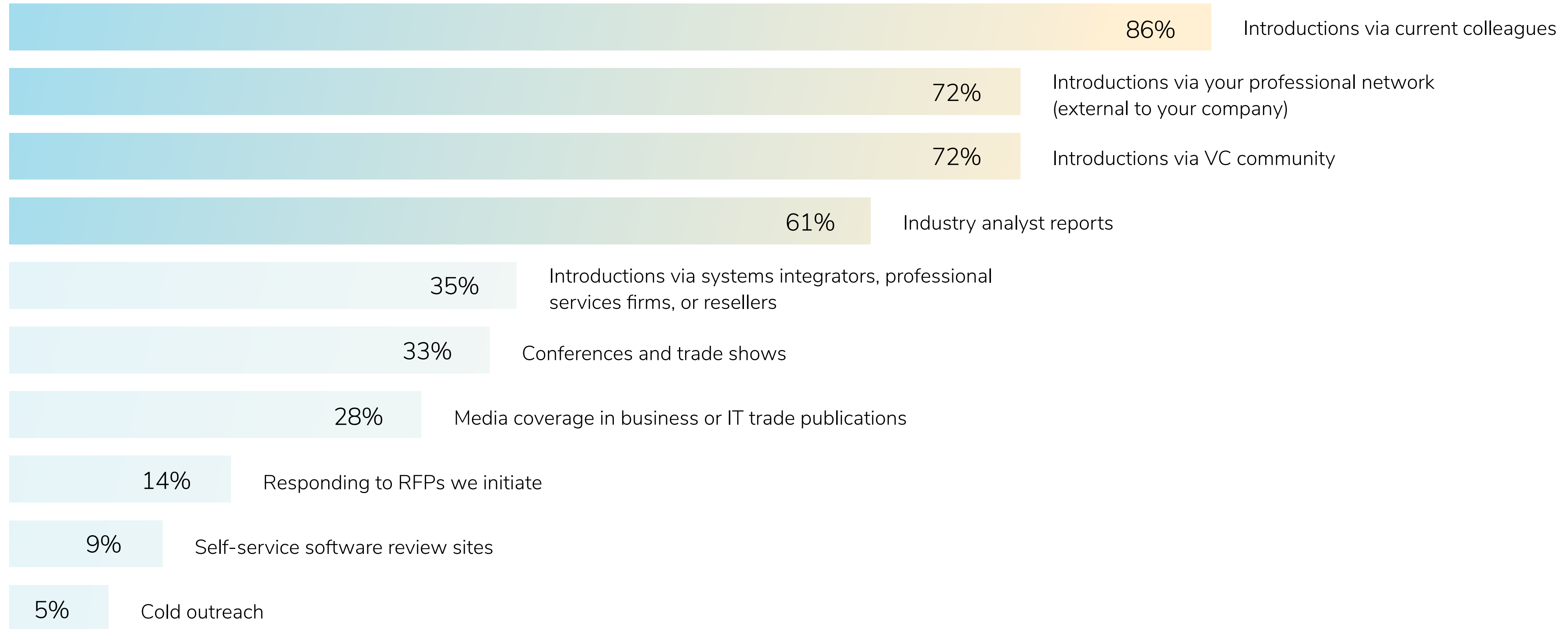
86%

of surveyed CIOs and IT leaders report that introductions by current colleagues are the most effective way for startups to get their attention.

Introductions from professional networks (external to their company) through the VC community were important avenues as well (**72%**).

While industry analyst reports seem to be decreasing in importance, many (**61%**) respondents still believe they're an effective channel for startups to gain mindshare.

What are the most effective ways for startups to successfully get your attention?



Cloud marketplaces are a powerful emerging vendor procurement channel

As we reported in our playbook [The Startup's Guide to Cloud Marketplaces](#), listing on cloud marketplaces can be an excellent way for startups to shorten sales cycles, close larger deals, and streamline procurement.

Digital procurement is a growing trend. [Forrester estimates](#) that by 2023, 17% of the \$13 trillion U.S. B2B procurement market will be transacted online.

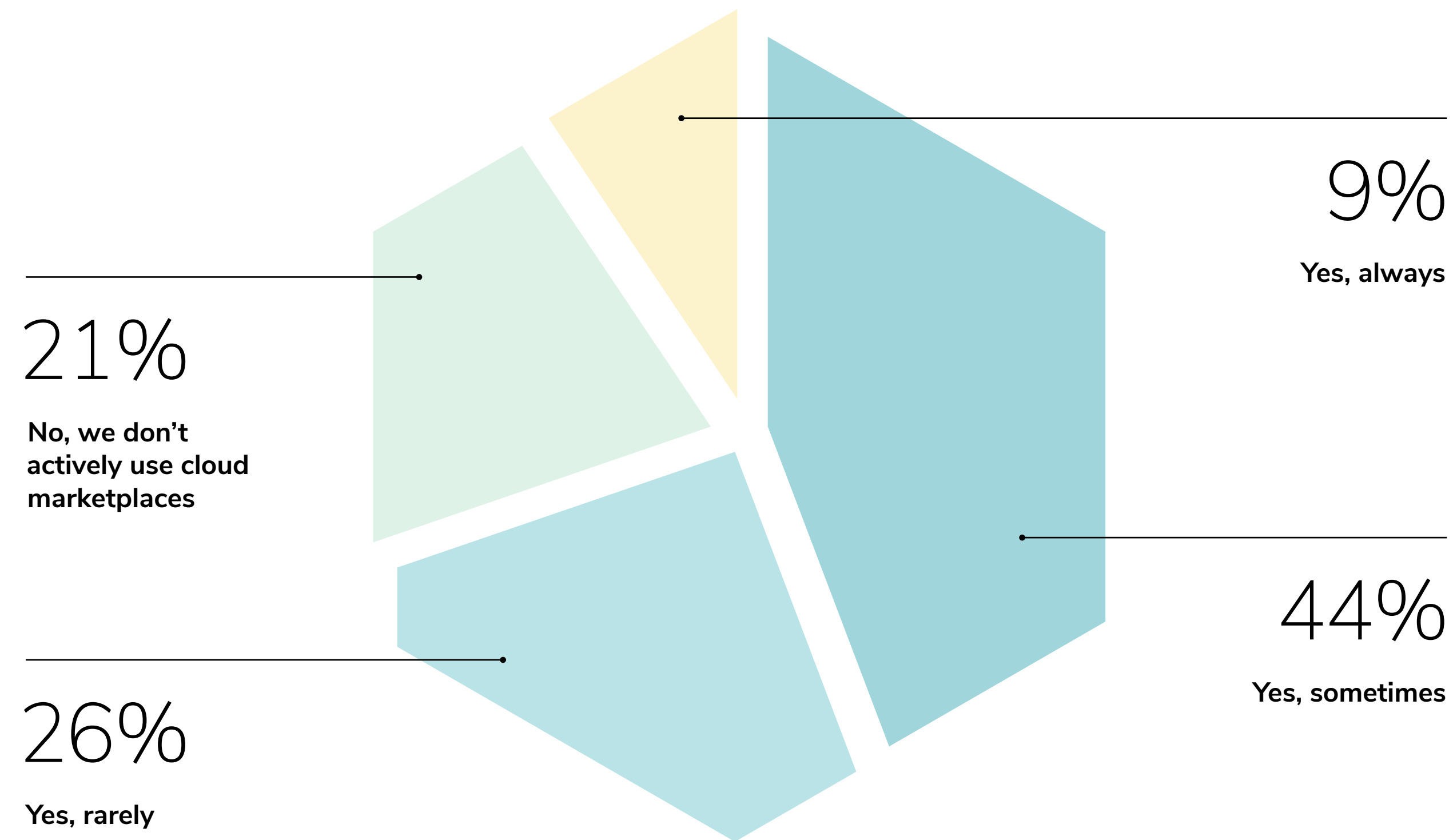
Our report finds that 79% of CIOs and IT leaders use cloud marketplaces to discover and procure new vendors at least some of the time, and 9% always use cloud marketplaces for vendor procurement.

“We place a high value on finding technology partners with whom a mutually beneficial relationship can be built, where their solution moves us forward on our digital journey and we can help influence their roadmap for success. Cloud marketplaces are one avenue we have used to find such partners.”

Brian Donnelly

CIO, Invista

Does your organization use cloud marketplaces to discover and procure new vendors?



“By consolidating spend, procurement can unlock larger discounts from cloud service providers, which incentivizes further spend on cloud marketplaces.”

Trevor Schulze
CIO, Ring Central

‘Freemiums’ play a modest role in discovery and adoption of startups

Sapphire frequently invests in companies with a product-led growth (PLG) model.

A common PLG model attribute is offering a freemium or open source edition of the product, which allows users to interact quickly and directly with the product at no cost, demonstrating its value immediately.

“Our free trial program allows users to experience the value of our platform extremely quickly at zero cost – and we’ve designed it to be intuitive to get started, which goes a long way in getting full teams onboard.”

Matt Burns

Startup Ecosystem Leader, Monday.com

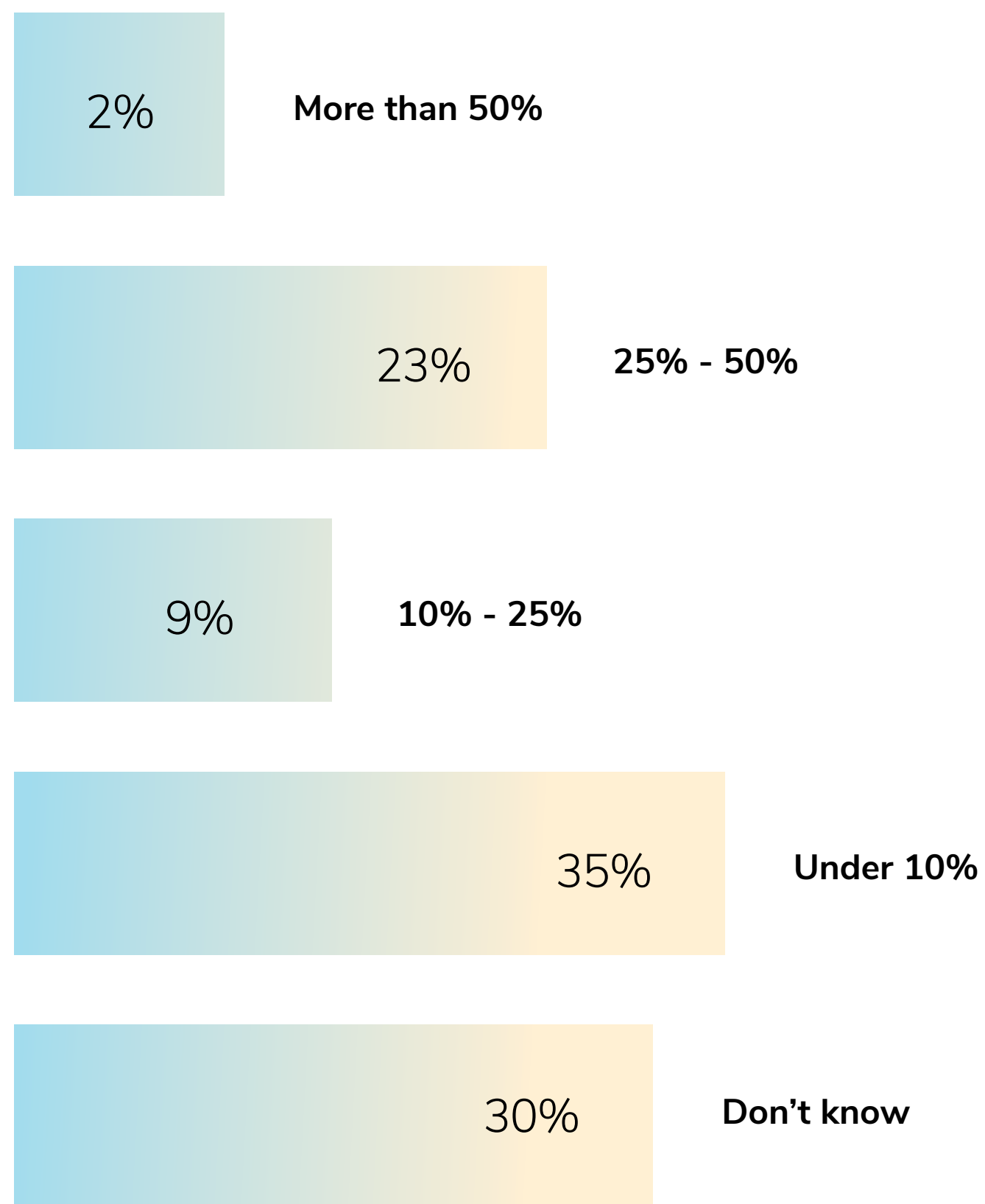
In this year’s report, we explore the percentage of startups in respondents’ IT portfolio that have been identified after employee adoption of a freemium or free trial offering.

The challenge of asking IT leaders to report on employee adoption of technology is represented in our results.

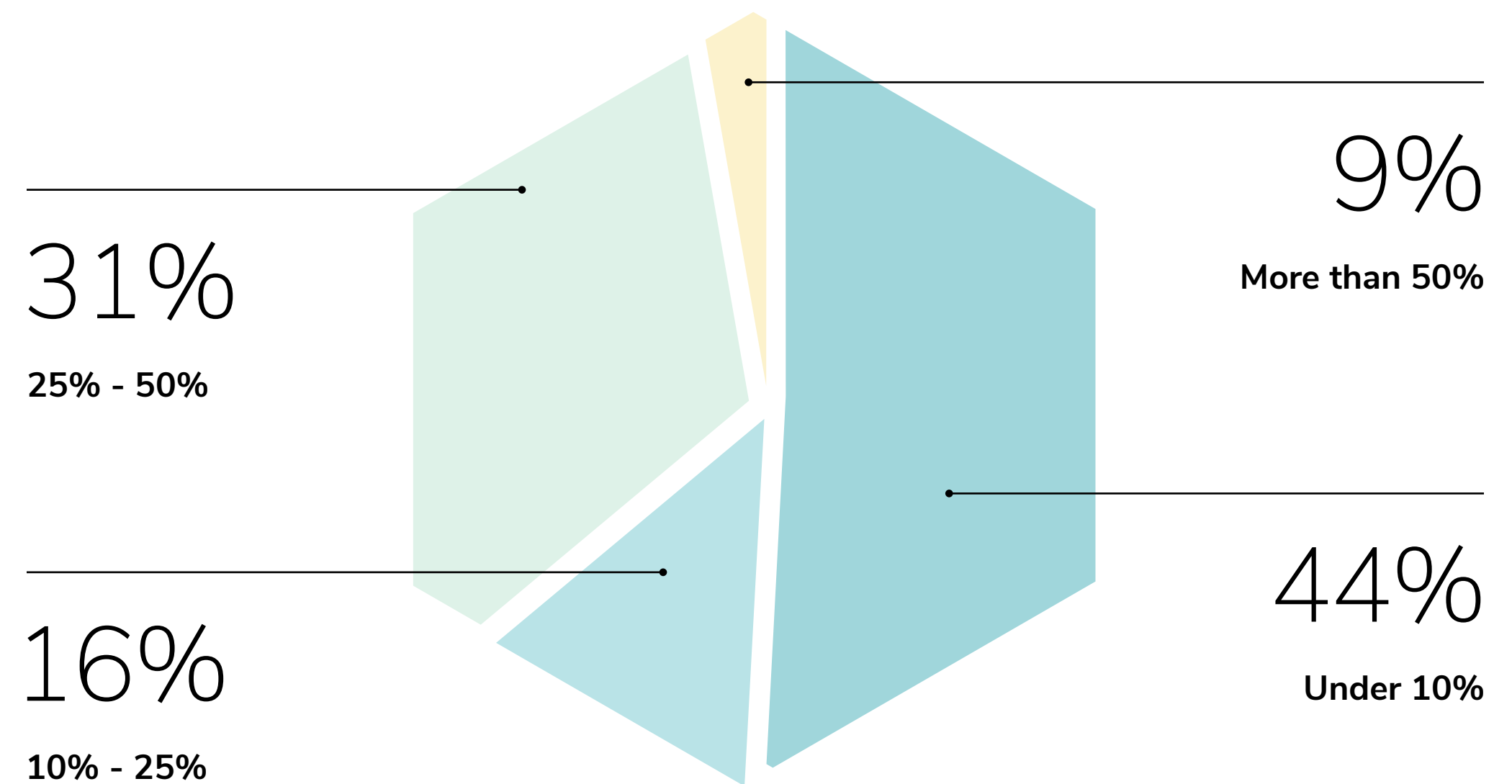
30% of CIOs didn’t know the percent of startups in their portfolio that were identified via this sequence.

Of those who were able to answer the question, 36% said this applies to a quarter or more of startups in their portfolio. Half report that only 10% of startups were procured after employee adoption.

How many startups in your IT portfolio were identified following employee adoption of a freemium or free trial?



Breakdown of adoption from employee usage of freemium offerings, excluding respondents that responded "don't know:



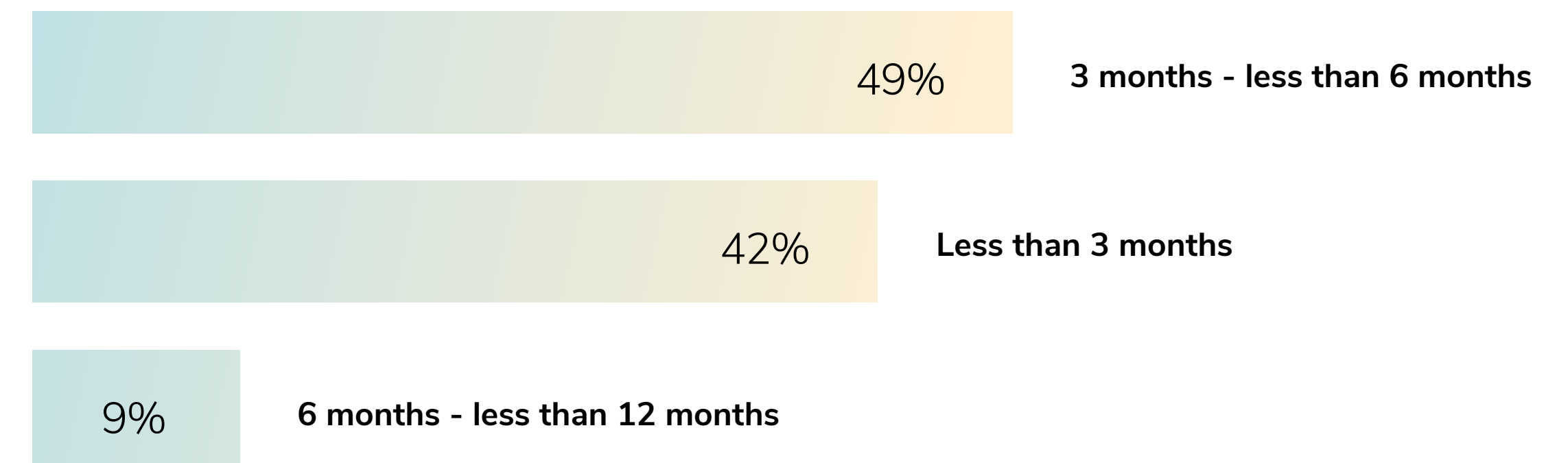
Proof-of-concept (POC) length has bounced back from 2020

In our 2019 CIO Innovation Index, we identified a positive correlation between shorter POCs and a greater chance of POCs resulting in successful implementation.

While this correlation has held true year-over-year, we saw an overall lengthening of average POC length in 2020, which we attributed to the disruption caused by remote work.

This trend has reversed, and POCs are now being completed faster than ever.

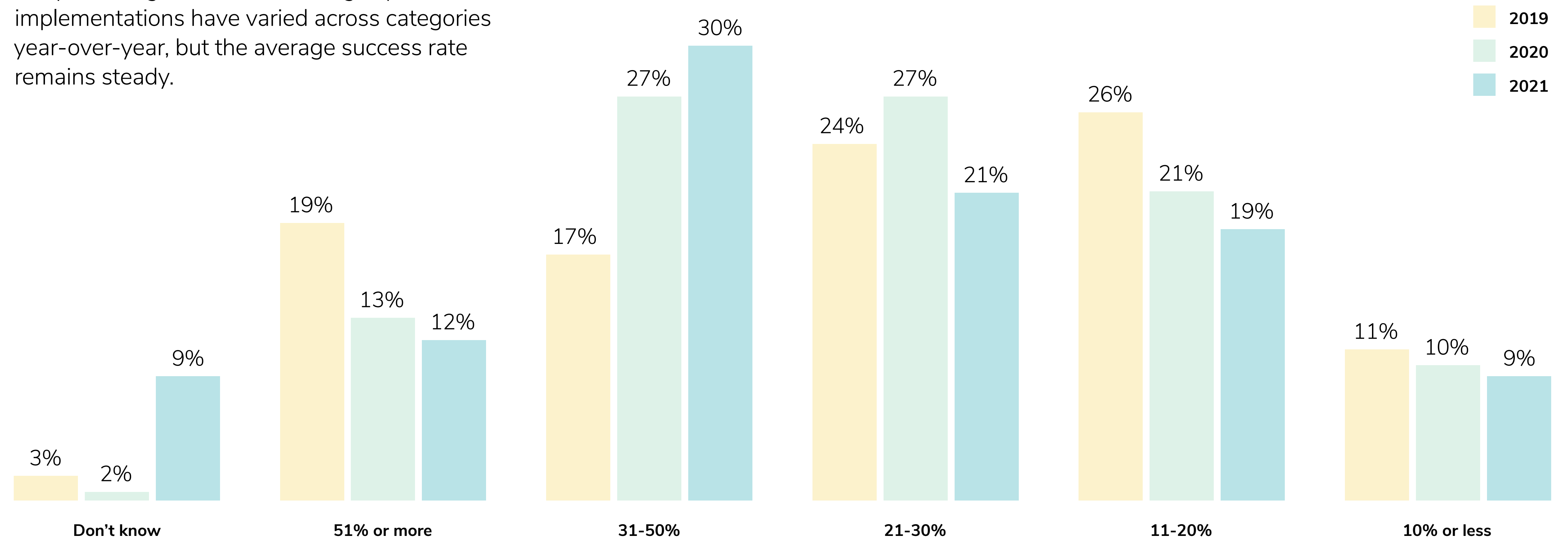
What is the typical length of a POC in your organization?



This year, 91% of CIOs are completing proof-of-concepts with startups in less than 6 months, compared to only 51% of respondents in 2020.

What percentage of POCs result in successful implementation?

The percentage of POCs resulting in productive implementations have varied across categories year-over-year, but the average success rate remains steady.



I.T. is responsible for startup POCs, though LOBs also have ownership

At Sapphire, we spend a lot of time connecting with innovation-minded executives across IT, startup engagement and innovation teams, and functional leadership.

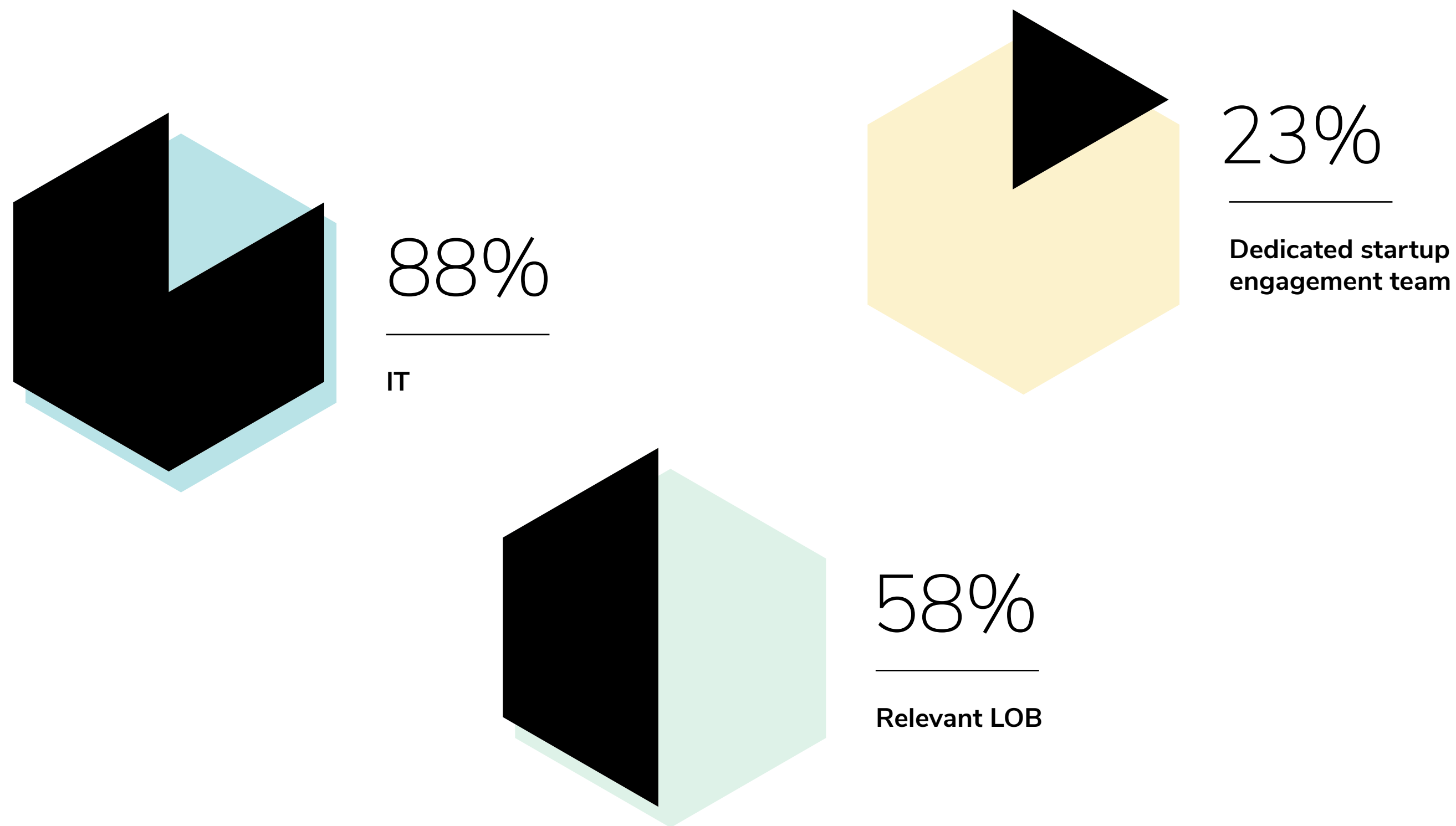
Despite the expansive nature of our network, our survey found that **IT is still the key stakeholder for startup proof-of-concepts.**

“Sapphire strives to serve as a conduit for innovation between enterprises and startups - and while we engage with leaders across the enterprise, we still find that IT teams have important influence on technology across functions.”

Shruti Tournatory

Head of Business Development + Go-To-Market (GTM)
Sapphire Ventures

Within your company, which team typically owns startup POCs and manages their outcome?



88%

of respondents say that IT typically owns startup POCs and manages outcomes.

58%

also note that the relevant line of business (LOB) for a given POC typically has ownership as well. In many cases, a POC might be a joint effort between IT and the LOB.

Benchmark your startup engagement process

Professional networks and the VC community are crucial sources of startup information for CIOs and IT leaders.



Does your network provide you the innovation access you need?

79% of respondents use cloud marketplaces to discover and procure new vendors in some capacity.



Do you utilize cloud marketplaces as part of your procurement strategy?

30% of total respondents didn't know the % of startups in their portfolio that were identified after employee adoption of a freemium or free trial offering.



Do you have visibility into employee adoption of tools or a strategy for evaluating or expanding usage of already-adopted solutions?

91% of respondents are completing proof-of-concepts with startups in less than 6 months.



How quickly does your organization evaluate startups and proceed to successful implementation?

04

Key Takeaways →

What does the 2021 CIO Innovation Index mean for CIOs?

Fresh Benchmarking Data

Workforce strategy is undergoing major shifts

Employees are making their preferences for the post-COVID workplace clear. Most IT leaders are hearing that input and are evolving their workforce strategy to accommodate in order to retain talent. Enabling technology is an important part of making that evolution effective, and startups are key to helping facilitate hybrid and remote work across categories like collaboration, communication, cybersecurity, and workforce management.

CIOs should tap into a growing number of channels for startup adoption

CIOs and IT leaders are utilizing their professional networks and the VC community for information on the startup ecosystem. Additionally, cloud marketplaces and employee adoption are increasingly popular channels for the vendor procurement process. CIOs should make sure they have access and visibility into the innovation ecosystem across many entry points.

Emerging technologies are table-stakes for CIOs, and spend with startups is on the rise

When we introduced our emerging technology categories in 2019, many of them were nascent for enterprise adoption. Today, nearly all CIOs surveyed have adopted many technologies within these areas. In addition, many larger established vendors have caught up to startups in their offerings for newer software categories. Investing in startup solutions gives CIOs insights into next generation of technologies, before the large vendors catch up on innovation. CIOs' commitment to spending with startups continues to grow; startups capture an increasing proportion of IT vendor budgets year-over-year.

Technology executives have a stake in ESG

A combination of regulatory and consumer pressures have made ESG principles a necessary part of technology strategy. In order to stay ahead, CIOs must be evaluating tools that facilitate meeting ESG goals.

What does the 2021 CIO Innovation Index mean for startups?

New insights into enterprise strategy

Startups are crucial for remote work—and it's here to stay

Workforce strategy is undergoing major changes, and for many enterprises remote work is a permanent part of the future landscape. CIOs are heavily using startups to facilitate hybrid and remote models, but established vendors will continue to ramp up their offerings in these areas.

ESG is increasingly important to enterprises and their vendors

As executives in our network ramp up their focus on ESG principles as a facet of technology strategy, and meet a combination of regulatory and consumer pressures, they'll seek to adopt new technologies to help facilitate ESG goals. In addition, enterprises are beginning to evaluate their current portfolio on ESG criteria - startups should take this into account for their products and messaging.

IT continues to own startup POCs, with LOB collaboration

88% of respondents say that IT typically owns startup POCs and manages the outcomes, meaning IT is still an important stakeholder for many startup deal cycles.

Large vendors are catching up on emerging technologies

Sapphire's emerging technology categories for this survey were introduced in 2019, when many were new areas for enterprise adoption. Today, many of these categories are table-stakes, and established vendors have caught up to startups in enterprise spend. It's important for startups that sell to enterprises to emphasize their differentiation in speed of innovation, better functionality, and ease of integration.

Industry leaders are using more channels to discover and procure startups

CIOs and technology teams are leaning into professional networks and the VC community for insight into the startup ecosystem; your customers and investors are an important part of your reach. We also found that cloud marketplaces and employee adoption are increasingly viable channels for getting CIOs' attention through procurement. Cloud marketplaces aren't a major lead-tool for most startups, but do help with important steps like reducing buying friction, accessing committed budget, and increasing buyer confidence.

05

Background & Methodology →

Background & Methodology



Objectives

Sapphire conducted this quantitative study to better understand how organizations are engaging with emerging technologies. The goals of the report are:

- To continue to develop broad-based, quantifiable perspectives about how senior IT decision makers at enterprise companies are investing in emerging technologies and how they are engaging with startups over time.
- Provide CIOs and IT teams with a benchmark, helping them understand trends and best practices, as well as to provide startups with visibility into enterprise IT priorities.



Methodology

- Typeform web-based survey
- Conducted among CIOs, VPs of IT and senior IT decision makers in enterprises
- Fielded: May - August, 2021

Sample Overview

We surveyed 43 respondents sourced from Sapphire's executive network. Our sample was comprised of a mix of industries and company sizes.



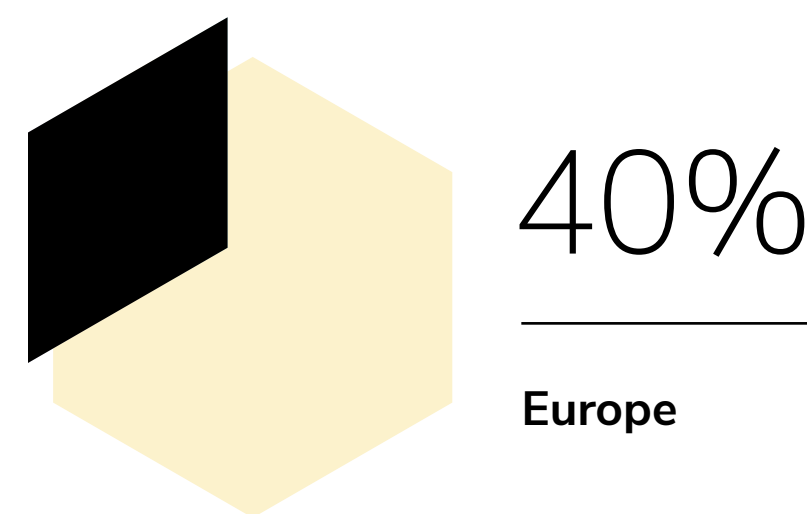
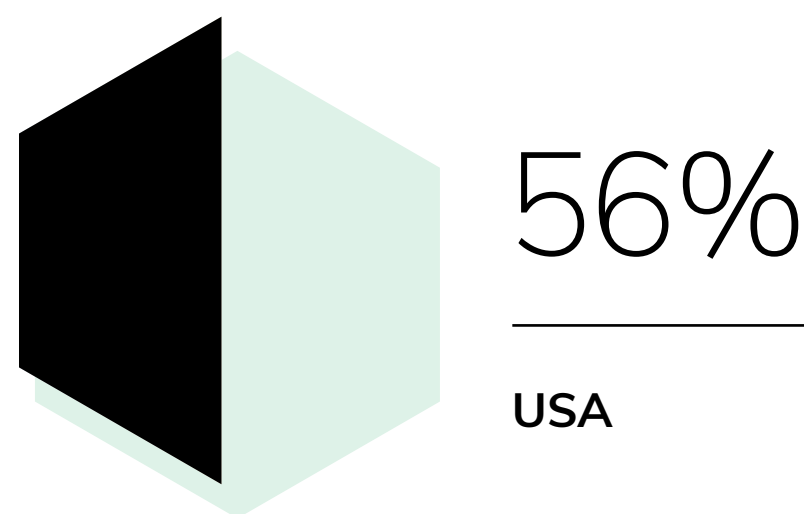
Top industries: Finance/insurance, manufacturing, IT, healthcare/pharma and media/entertainment

Company sizes: 55% 10,000 employees or more; 7% 5 to 10,000 employees; 23% less than 5,000 employees



Qualification criteria

- CIO, VP IT or senior IT decision maker
- Can speak to their organization's engagement with emerging technologies and startups
- Targeted organizations in the U.S. and Europe with 5,000+ employees



Get in Touch



annie@sapphireventures.com



www.sapphireventures.com



[@SapphireVC](https://twitter.com/SapphireVC)



www.linkedin.com/company/sapphirevc/